

UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST SERVICE

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Insect Control - Coeur d'Alene

Historical Record

1929-1931

by

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Insect Control - Coeur d'Alene

The following record has been compiled from the data now on file in the Coeur d'Alene office, and is being presented here in chronological order.

The first survey of insect infestations on the Coeur d'Alene Forest was instituted and carried out by the Bureau of Entomology in the late summer of 1928. Three subsequent surveys were also made by this Bureau in 1929-30-31. The basic data from which the 1928 report was compiled were secured from sample strips approximately 33 miles in length, averaging in width from two to three chains, and comprising an area of 545 sample acres. The report indicated an average infestation of 0.28 trees per acre on an area comprising 9000 acres. .

First control measures were instituted late in April, 1929. An allotment of \$6500 was set up and this figure was gradually increased to \$7787. 5620 acres, or 62 percent of the total estimated infested area, were covered during the control period, treating 1074 trees. On the basis of the estimated number of trees infested 57 percent were

not treated because of insufficient funds. The entire 1929 project was confined to the Steamboat drainage which contains an excellent stand of merchantable white pine, and one which has attracted the attention of practically every lumberman in the Inland Empire.

The 1929 survey of infestations was enlarged to include practically all of the infested white pine type within the Forest with the exception of Eagle Creek drainage. The acreage embraced within this survey, together with the estimated number of infested trees recommended for treating, is given below.

Main River Area

<u>Unit</u>	<u>Area in Acres</u>	<u>Trees</u>
Rock City-Brett & Miner Cr.	9024	2229
Flat Creek	10288	1457
Yellow Dog-Little Guard	<u>15416</u>	<u>6086</u>
Total for area	34728	9772

Steamboat Area

Steamboat & Can Creeks	16679	3610
Omaha Creek	<u>5033</u>	<u>377</u>
Total for area	21712	3987

<u>Unit</u>	<u>Area in Acres</u>	<u>Trees</u>
Cougar Gulch	10201	1072

Magee Area

Stewart-Potter Creeks	7415	5797
Big Elk Creek	<u>5414</u>	<u>3476</u>
Total for Area	12829	9273

Little River Area

From mouth of Cascade to head of River	<u>20070</u>	<u>1800</u>
Total for Forest	99540	25904

On the basis of the foregoing figures the Bureau of Entomology recommended the expenditure of \$150,000 for control measures during the spring of 1930. Accordingly, plans were formulated late in the winter of 1929-30 for carrying out control measures on the largest project of its kind ever undertaken in Region One. Actual field operations were started in the Grizzly District, Steamboat Creek Drainage, on March 30, and crews were gradually increased as rapidly as weather conditions would permit until 29 camps, employing 665 men, were in operation. With the exception of a few days during the month of May, conditions were ideal in the field during the entire time the work

was being carried on, and the last camp was brought in on June 20 after 83 days of field activity. The following figures are being set forth as a matter of comparison between the estimated number of infested trees and the number actually treated.

<u>District</u>	<u>Acres</u>	<u>Estimate Trees</u>	<u>Treated Trees</u>	<u>Dif.</u>	<u>Percent Treated</u>
Shoshone	34728	9772	8794 ✓	-978	
Grizzly	31913	5059	3604	-1455	
Forks	12829	9273	4872	-4401	
Little River	<u>20070</u>	<u>1800</u>	<u>5571</u>	<u>+3771</u>	
Total	99540	25904	22841	-3063	.88

The 1929 survey did not include any of the Little River District below the mouth of Cascade Creek. However, everything was worked from the Breakwater to the head of the river and this accounts for the wide difference in the number of estimated trees and the number of trees treated in that District. It is estimated that approximately 11,000,000 feet B.M. of timber was cut in carrying out control measures on this project, while the total area covered amounted to 57,800 acres, including the same area which was treated in 1929.

The survey which was made in 1930 showed a large amount of reinfestation⁴ on practically all areas

which had previously been treated, together with infestations on adjoining areas. Accordingly, it was decided to carry on fall control on the Grizzly and Shoshone Districts. With this in mind the first camp was established on Can Creek, Steamboat Drainage, September 26, and two camps, one on Yellow Dog Creek and one on Downey Creek, were established early in October. Work continued until November 16, at which time it had to be suspended on account of weather conditions. A total of 1848 trees were treated by felling, decking, and burning.

Continuing in the Spring of 1931, the first camp was established April 6, the number being gradually increased until 14 were in operation, employing about 300 men. Conditions, generally, were unfavorable during the month of April which resulted in considerable extra expense in getting camps in and set up. In the Forks District we were unable to establish camps until May 4. At this time it was noted that broods were beginning to emerge not only in this District but in all other districts as well. Work was continued until about June 1, covering all areas recommended for treatment with the exception of a very small portion of the "Forks Area" located in the extreme upper end of the

Little River District. Below is given a comparison, by Districts, of the number of trees estimated for treatment and the number actually treated. It will be noted the survey showed a greater number of trees than were recommended for treatment.

<u>District</u>	<u>Acres</u>	<u>Trees Est.</u>	<u>Recommended for Treatment</u>	<u>Treated</u>	<u>Dif.</u>	<u>% Treated</u>
Little River	34950	2099	870	616	-254	
Grizzly	23380	1791	1559	1940	+ 381	
Shoshone	34240	4598	4246	4085	-161	
Forks	<u>16700</u>	<u>1243</u>	<u>842</u>	<u>475</u>	<u>-367</u>	
Totals	109270	9731	7517	7116	-401	94

Note: Included in the number of trees recommended for treatment are 163 trees located in Picnic Creek Drainage which were thrown out on account of the timber being logged. This reduces the number finally agreed upon to 7354 and brings the percentage of trees treated up to 95 percent of the total.

Summary of Work Accomplished to Date

<u>Year</u>	<u>Acres Surveyed</u>	<u>Est. Trees</u>	<u>Rec. For Treatment</u>	<u>No. Trees Treated</u>	<u>Actual Cost from Allot. Funds</u>	<u>Cost Per Tree</u>
1928	9000	2500	2500	None	--	
1929	99540	25904	25904	1074	\$ 7248	\$6.74
1930	109270	9731	7040	24689	141557	5.73
1931	-	-	-	5268	32423	6.15
Totals	217810	38135	35444	31031	181228	5.84

It will be noted that of the total number of estimated trees infested 93 percent of this number have been recommended for treatment , and 87 percent of the number recommended for treatment have been treated. The total number of trees treated to date amounts to 81 percent of the total estimated number infested.

The survey conducted by the Bureau of Entomology during the summer of 1931 covers a total of 127420 acres, including all areas covered by previous surveys. This survey indicates a recurrence of infestation to the number of 12000 trees, 8700 of which have been recommended for treatment at an estimated cost of \$52000.00.

We are, therefore, still confronted with a control project the size of which is one third as large as the project undertaken in 1931. Theoretically this would indicate that within another two or three years we should be able to overcome or wipe out the infestation. Theory, however, does not reduce the bugs to the point where they are no longer a menace to our stands of white pine. We of the Coeur d'Alene and also the members of the Bureau of Entomology have given a great deal of thought to the conditions as encountered here, trying to arrive at some conclusion as to the cause of the

annual recurrence of the infestation, particularly on large areas which have been cleaned up each spring since 1929.

No doubt the 19 percent of estimated infested trees which were not treated have to some extent been responsible for at least part of the continued infestation from year to year. On the other hand, it is my personal belief that over wintering broods which emerge early in the spring are responsible for a great deal of recurrent infestation. Then there also is the possibility of recurrent infestation which may be caused by the migration of insects from surrounding localities. However, no definite data have been obtained on which to support this contention. The fact remains that after having spent \$181,000 we still have a problem of paramount importance and one which in my opinion will yet require a great deal of scientific research before we will be finally able to stamp it out.

It is very disappointing, from an administrative viewpoint, that a greater percentage of reduction in infestation has not been obtained. No doubt the number of infested trees which have been left from year to year has been a contributing factor, but I do not believe that this alone constitutes the entire cause. The

2500 infested trees which existed in 1929 certainly could not have been responsible for the startling conditions which prevailed in 1930. The percentage of reduction in infestation can not, in my opinion, be used as a yard stick with which to measure the efficiency of work accomplished.

The total area covered to date amounts to 83735 acres as shown on the accompanying map while the total amount of timber involved is estimated at 15,000 M feet B.M.

Harold Drake
Logging Engineer.

January 28, 1932.